CLAIMS

1. A method of monitoring a concentration of oxygen in a beverage production process, the method characterized by comprising:

a step of continuously sampling gas in a space part inside a beverage storage tank storing a beverage to be filled, the beverage storage tank being provided to a beverage filler; a step of measuring a concentration of oxygen in the sampled gas; a step of comparing the measured value and a preset first reference concentration; a first determination step of issuing an alarm signal when the measured concentration of oxygen exceeds the first reference value;

a step of continuously measuring a concentration of oxygen included in the beverage inside the beverage storage tank; a second comparison step of comparing the measured concentration of oxygen in the beverage with a preset second reference value; and a second determination step of issuing an alarm signal when the measured concentration of oxygen in the beverage exceeds the second reference value.

2. A method of monitoring a concentration of oxygen in a beverage production process, the method characterized by comprising:

a step of continuously sampling gas in a space part inside a beverage storage tank storing a beverage to be filled, the beverage storage tank being provided to a beverage filler; a step of measuring a concentration of oxygen in the sampled gas; a step of comparing the measured value and a preset first reference concentration; a first determination step of issuing an alarm signal when

the measured concentration of oxygen exceeds the first reference value;

a step of continuously measuring a concentration of oxygen included in the beverage flowing through a beverage supply channel supplying the beverage to the beverage storage tank storing the beverage to be filled, the beverage storage tank being provided to the beverage filler; a second comparison step of comparing the measured concentration of oxygen in the beverage with a preset second reference value; and a second determination step of issuing an alarm signal when the measured concentration of oxygen in the beverage exceeds the second reference value.

3. An apparatus for monitoring a concentration of oxygen in a beverage production process, the apparatus characterized by comprising:

sampling means for continuously sampling gas in a space part inside a beverage storage tank storing a beverage to be filled, the beverage storage tank being provided to a beverage filler; measuring means for measuring a concentration of oxygen in the sampled gas; comparison means for comparing the measured value and a preset first reference concentration; first determination means for issuing an alarm signal when the measured concentration of oxygen exceeds the first reference value;

measuring means for continuously measuring a concentration of oxygen included in the beverage inside the beverage storage tank; comparison means for comparing the measured concentration of oxygen in the beverage with a preset second reference value; and second determination means for issuing an alarm signal when the measured concentration of oxygen in the beverage exceeds the second reference value.

4. An apparatus for monitoring a concentration of oxygen in a beverage production process, the apparatus characterized by comprising:

sampling means for continuously sampling gas in a space part inside a beverage storage tank storing a beverage to be filled, the beverage storage tank being provided to a beverage filler; measuring means for measuring a concentration of oxygen in the sampled gas; first comparison means for comparing the measured value and a preset first reference concentration; first determination means for issuing an alarm signal when the measured concentration of oxygen exceeds the first reference value;

measuring means for continuously measuring a concentration of oxygen included in the beverage flowing through a beverage supply channel supplying the beverage to the beverage storage tank storing the beverage to be filled, the beverage storage tank being provided to the beverage filler; second comparison means for comparing the measured concentration of oxygen in the beverage with a preset second reference value; and second determination means for issuing an alarm signal when the measured concentration of oxygen in the beverage exceeds the second reference value.

5. An apparatus for monitoring a concentration of oxygen in a beverage production process, the apparatus characterized by comprising:

a flow channel for gas in a space part inside a beverage storage tank storing a beverage to be filled to flow through to outside the beverage storage tank, the beverage storage tank being provided to a rotary beverage filler;

a distributor for receiving the gas from the flow channel and delivering the gas outside the beverage filler, the distributor being provided to a rotating central shaft part of the beverage storage tank; an oxygen measuring device constantly measuring a concentration of oxygen in the gas delivered from said distributor; a delivery device for delivering the gas inside the space part to said oxygen concentration measuring device via said flow channel and said distributor; and a determination device comparing the concentration of oxygen from said oxygen concentration measuring device with a preset reference value and issuing an alarm signal when the measured value exceeds the reference value.